Economic Methodologies for Antitrust

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Related Work

- "A Daubert Discipline for Merger Simulation"

    – Gregory J. Werden, Senior Economic Counsel, U.S. Department of Justice

    – David Scheffman, LECG & Adjunct Professor at Vanderbilt

Outline

- Antitrust questions are tough to answer
- Methodological tools are easily misused
  - Some tools are appropriate for some jobs
  - but not for others
- How can attorneys tell the difference?
  - Classic principal-agent problem
- *Daubert* your own economists!
  - Ask questions, become better informed
- Example
- Conclusion

Litigation Poses Difficult Questions

- Will this merger raise price?
- How much did this conspiracy raise price?
- What would profits have been "but for"…
  - anticompetitive restraints or behavior?
  - patent infringement?
- Questions compare two states of the world, but only one is observed

How Do We Predict the Unobserved State of the World?

- Rules of thumb, e.g. market share presumptions
  - Ignore market forces
- Natural experiments or "reduced form" models
  - Good if nature has performed the right experiment
- Structural or "behavioral" models
  - Good if model captures reality
- Classroom experiments (recent development)
  - FCC used to predict effects of ATT-Comcast

Example: Rule-of-Thumb For Patent Infringement Damages

- "Acceptable" vs. "unacceptable" substitutes
  - Drawing bright lines where there are none
  - Similar problem to market delineation
- Infer lost sales from market shares
- PROBLEM: ignores market forces like quantity accretion & price erosion
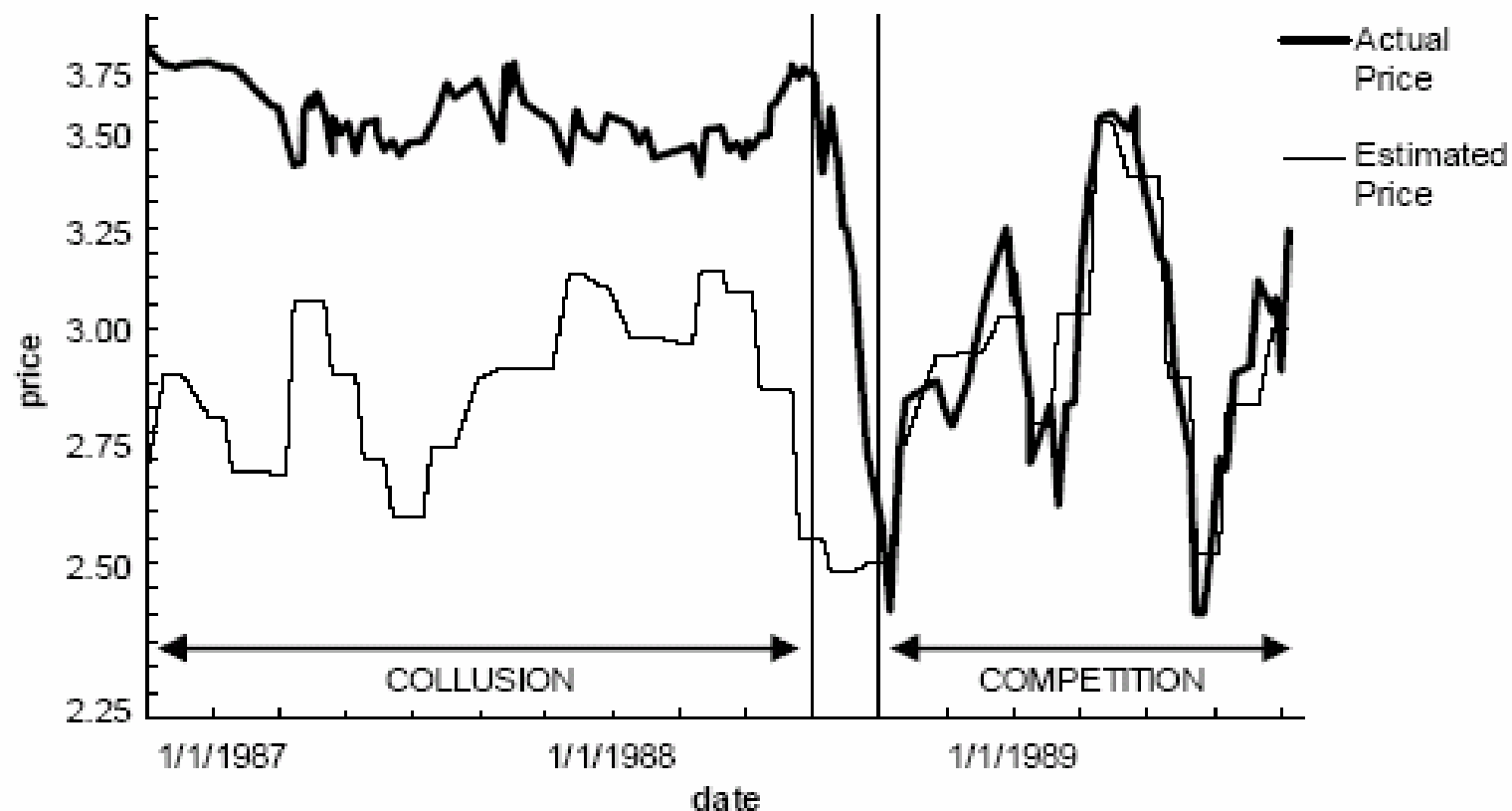
Example: Natural Experiments

Figure 1. Actual and estimated prices for frozen perch at auction.

- Compare control and treatment groups
- PROBLEM: how good are controls?
- PROBLEM: does experiment speak to question?

Structural or "Behavioral" Models

- *Back End*: Behavioral Model
  - Consumer, firm (& retailer) behavior
  - Equilibrium is result of their interaction
- *Front End*: Parameters "feed" the model
  - Estimation (can be expensive)
  - Calibration to observed data, like margins
- *Equilibrium*
  - Current equilibrium (observed)
  - "But for" equilibrium (predicted)

Structural Models (cont.)

- Can account for market forces
- Can focus an investigation or trial by identifying
  - What matters
  - Why it matters
  - How much it matters
- PROBLEMS:
  - Very difficult to build realistic models that address question of interest
  - Reliability unknown

Example: Parking

- Key parameters
  - cost of walking
  - locations of merging & non-merging lots
  - location of offices
  - capacity of lots

- Capacity constraints on merging lots attenuate merger effects.
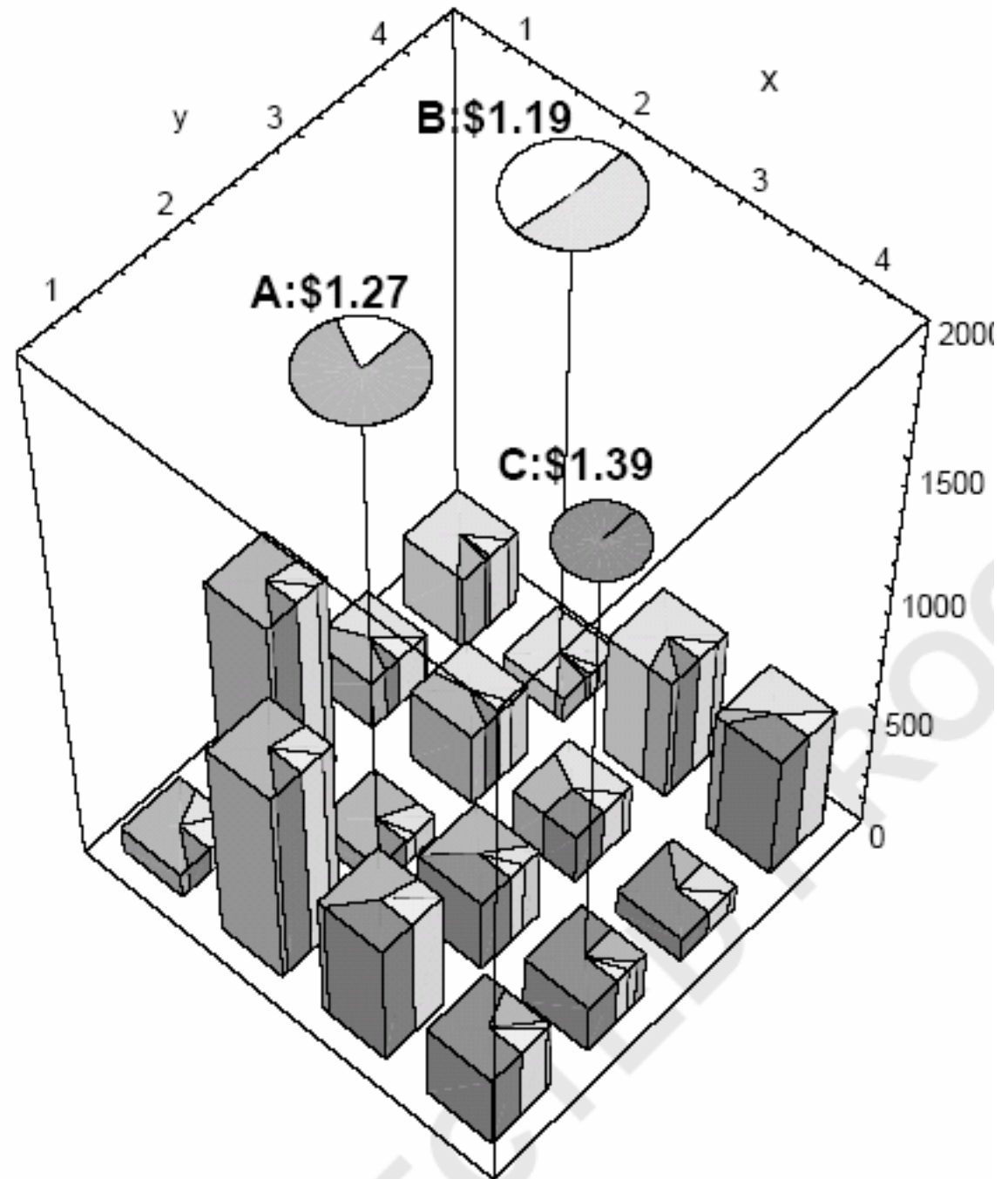
How Does an Attorney Choose Best Methodology?

- Principal-agent problem
- Problems arise when agent is better informed
  - Which expert do I hire? (adverse selection)
  - Once hired, how do I know expert is using most appropriate methodology? (moral hazard)
- Classic solutions
  - Principals become better informed
  - Incentive pay

Can Academics Help?

	Academics	Practitioners
Concern	Methodological innovation	How well is methodology applied to case
Outcome	Demonstrate policy tradeoffs	Need an answer
Check & balance	Peer review	Adversarial litigation

Ultimate Test: "Out-of-Sample" Forecasts

- Analogy to macroeconomics
- But there is little direct evidence on forecasting accuracy of various antitrust methodologies
- Instead, ask questions to assess reliability
  - Does rule-of-thumb ignore significant market forces?
  - Is natural experiment a good metaphor for question of interest? How good is control group?
  - Does structural model accurately characterize observable data?

Example: Not Fitting the Data
Concord Boat v. Brunswick

- Structural model predicted 50% plaintiff share in "but-for" world of no loyalty discounts.

- Structural model could NOT explain observed 75% share before loyalty discounts began.

Current Agenda:
Enforcement R&D

- Which methodologies work best under which conditions?
  - Merger retrospectives
  - Other out-of-sample events

- How best to use structural models,

  For assumptions that matter:
  - Gather evidence to support; or
  - Choose conservative assumption

Take-Away: Advice to Practitioners

- Methodological tools are easily misused
  - When used, must fit with totality of evidence
  - Can be expensive; yet yield very little

- Is a methodology necessary for defensive reasons?
  - Hard to critique methodology without replicating
  - Does some number beat no number?

- Become better informed about methodologies